AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-29 (Canceled).

30. (Previously Presented) A method for qualitative or quantitative electrochemiluminescence detection of an oligonucleotide target analyte in a sample, the method comprising the steps of:

(a) preparing an assay mixture comprising:

(i) the sample,

(ii) one or more assay reagents comprising a labeled complex comprising an electrochemiluminescent label selected from the group consisting of ruthenium bipyridine complexes and osmium bipyridine complexes attached to an oligonucleotide probe complementary to the analyte and hybridizing therewith, the label being capable of generating a detectable electrochemiluminescent emission, wherein the labeled complex is immobilized on a magnetic particle,

(iii) an electrochemiluminescence quenching moiety selected from the group consisting of phenol and benzoquinone, and

(iv) a coreactant,

(b) bringing the assay mixture into contact with a working electrode,

(c) applying a potential to the electrode, thereby enabling an electrochemiluminescence reaction to proceed,

(d) separating hybridized labeled complex from hybridized labeled complex,

(e) measuring the electrochemiluminescent emission produced by the label hybridized to the analyte via the oligonucleotide probe, and

(f) correlating the measured electrochemiluminescent emission with the presence or amount of the analyte in the sample.

31. (Previously Presented) A method for qualitative or quantitative electrochemiluminescence detection of an oligonucleotide target analyte in a sample, the method comprising the steps of:

(a) preparing an assay mixture comprising:

(i) the sample,

(ii) one or more assay reagents comprising a labeled complex comprising an electrochemiluminescent label selected from the group consisting of ruthenium bipyridine complexes and osmium bipyridine complexes attached to an oligonucleotide probe, complementary to the analyte and hybridizing therewith, the label being capable of generating a detectable electrochemiluminescent emission, the labeled complex further comprising an electrochemiluminescence quenching moiety selected from the group consisting of phenol and benzoquinone, the quenching moiety attached to the probe, wherein the labeled complex is immobilized on a magnetic particle, and

(iii) a coreactant,

(b) bringing the assay mixture into contact with a working electrode,

(c) applying a potential to the electrode, thereby enabling an electrochemiluminescence reaction to proceed,

(d) separating hybridized labeled complex from hybridized labeled complex,

(e) measuring the electrochemiluminescent emission produced by the label hybridized to the analyte via the oligonucleotide probe, and

(f) correlating the measured electrochemiluminescent emission with the presence or amount of the analyte in the sample.

32. (Previously Presented) An assay reagent kit for qualitative or quantitative electrochemiluminescence detection of an oligonucleotide target analyte in a sample, the assay reagent kit comprising, in one or more containers in packaged combination:

(i) one or more assay reagents comprising a labeled complex comprising an electrochemiluminescent label selected from the group consisting of ruthenium bipyride complexes and osmium bipyridine complexes attached to an oligonucleotide probe hybridizing with the analyte, the label being capable of generating a detectable electrochemiluminescent emission, wherein the labeled complex is immobilized on a magnetic particle,

(ii) an electrochemiluminescence quenching moiety selected from the group consisting of phenol and benzoquinone, and

(iii) a coreactant.

33. (Previously Presented) An assay reagent kit for qualitative or quantitative electrochemiluminescence detection of an oligonucleotide target analyte in a sample, the assay reagent kit comprising, in one or more containers in packaged combination:

(i) one or more assay reagents comprising a labeled complex comprising an electrochemiluminescent label selected from the group consisting of ruthenium bipyridine complexes and osmium bipyridine complexes attached to an oligonucleotide probe, complementary to the analyte and hybridizing therewith, the label being capable of generating a detectable electrochemiluminescent emission, the labeled complex further comprising an electrochemiluminescence quenching moiety selected from the group consisting of phenol and benzoquinone, the quenching moiety attached to the probe, wherein the labeled complex is immobilized on a magnetic particle, and

(ii) a coreactant.

34. (Previously Presented) A method for detecting an analyte in a sample composition, comprising the steps of:

(a) preparing an assay mixture comprising:

(i) said sample composition;

(ii) a first reagent comprising an ECL label having a chemical moiety that has electrochemiluminescent properties, which ECL label is capable of providing an observed ECL emission; and

(iii) a second reagent having an ECL quenching moiety that, when in quenching contact with an ECL label, attenuates the observed ECL emission thereby providing a reduced ECL emission, said ECL quenching moiety comprising at least one benzene moiety; and

(b) detecting a difference between the observed ECL emission and the reduced ECL emission, and thereby confirming the presence of said analyte in the sample solution.

35. (Previously Presented) A method according to claim 34, wherein said ECL quenching moiety comprises at least one moiety selected from the group consisting of phenol moieties, quinone moieties, benzene carboxylic acid moieties, and benzene carboxylate moieties.

36. (Previously Presented) A method according to claim 34, wherein the ECL quenching moiety comprises at least one phenol moiety.

37. (Previously Presented) A method according to claim 34, wherein the ECL quenching moiety comprises at least one quinone moiety.

38. (Previously Presented) A method according to claim 34, wherein the ECL quenching moiety comprises at least one benzene carboxylic acid moiety.

39. (Previously Presented) A method according to claim 34, wherein the ECL quenching moiety comprises at least one benzene carboxylate moiety.

40. (Previously Presented) A method according to claim 34, wherein the ECL label comprises ruthenium.

41. (Previously Presented) A method according to claim 34, wherein the ECL label comprises osmium.

42. (Previously Presented) A method according to claim 34, wherein the ECL label comprises a polyaromatic hydrocarbon.

43. (Previously Presented) A method according to claim 34, wherein the ECL label is attached to the analyte, and the ECL quenching moiety is attached to a binding partner that binds to the analyte in quenching contact.

44. (Previously Presented) A method according to claim 34, wherein the ECL quenching moiety is attached to the analyte, and the ECL label is attached to a binding partner that binds to the analyte in quenching contact.

45. (Previously Presented) A method according to claim 34, wherein the analyte is selected from the group consisting of an amino acid, a protein, a glycoprotein, a lipoprotein, a saccharide, a polysaccharide, a lipopolysaccharide, a fatty acid, a nucleic acid, an antibody, an antigen, a hapten, an enzyme, a hormone, a steroid, a vitamin, an oligonucleotide, and a pharmacological agent.

46. (Previously Presented) A method according to claim 45, wherein the analyte is selected from the group consisting of an oligonucleotide, a DNA molecule, an RNA molecule, a polypeptide, an antibody, an antigen, an enzyme, an enzyme substrate, an enzyme inhibitor, an enzyme agonist, an enzyme antagonist, and a polysaccharide.

47. (Previously Presented) A method according to claim 34, wherein the analyte comprises an oligonucleotide, and the ECL label and the ECL quenching moiety are present on separate oligonucleotide hybridization probes, which probes bind to the oligonucleotide in quenching contact.

48. (Previously Presented) A method according to claim 34, wherein the analyte comprises an oligonucleotide, and the ECL label and ECL quenching moiety are present in quenching contact on a single oligonucleotide hybridization probe that binds

to the oligonucleotide, and wherein said method further includes the presence of a DNA polymerase that is capable of degrading said hybridization probe when bound to said oligonucleotide so that the ECL label and ECL quenching moiety are no longer in quenching contact.

49. (Previously Presented) A method according to claim 34, wherein the analyte comprises an oligonucleotide, and the ECL label and ECL quenching moiety are present on a single oligonucleotide hybridization probe, which probe has self-hybridization sequences and is capable of self-hybridization in the absence of said oligonucleotide, and wherein self- hybridization brings the ECL label and ECL quenching moiety into quenching contact.

50. (Previously Presented) A method according to claim 34, wherein the analyte comprises an antibody to which the ECL quenching moiety has been attached, and the ECL label is attached to an antigen that binds to the antibody in quenching contact.

51. (Previously Presented) A method according to claim 34, wherein the analyte comprises an antibody to which the ECL label has been attached, and the ECL quenching moiety is attached to an antigen that binds to the antibody in quenching contact.

52. (Previously Presented) A method according to claim 34, wherein the analyte comprises an antigen to which the ECL quenching moiety has been attached, and the ECL label is attached to an antibody that binds to the antigen in quenching contact.

53. (Previously Presented) A method according to claim 34, wherein the analyte comprises an antigen to which the ECL label has been attached, and the ECL quenching moiety is attached to an antibody that binds to the antigen in quenching contact.

54. (Previously Presented) A method according to claim 34, wherein the analyte comprises an enzyme to which the ECL quenching moiety has been attached; and the ECL label is attached to a binding partner selected from the group consisting of an enzyme substrate, an enzyme inhibitor, an enzyme agonist, and an enzyme antagonist, which binding partner binds to the enzyme in quenching contact.

55. (Previously Presented) A method according to claim 34, wherein the analyte comprises an enzyme to which the ECL label has been attached; and the ECL quenching moiety is attached to a binding partner selected from the group consisting of an enzyme substrate, an enzyme inhibitor, an enzyme agonist, and an enzyme antagonist, which binding partner binds to the enzyme in quenching contact.

56. (Previously Presented) A method according to claim 34, wherein the analyte comprises a binding partner to which the ECL quenching moiety has been attached, said binding partner being selected from the group consisting of an enzyme substrate, an enzyme inhibitor, an enzyme agonist, and an enzyme antagonist; and the ECL label is attached to an enzyme that binds to the binding partner in quenching contact.

57. (Previously Presented) A method according to claim 34, wherein the analyte comprises a binding partner to which the ECL label has been attached, said binding partner being selected from the group consisting of an enzyme substrate, an

enzyme inhibitor, an enzyme agonist, and an enzyme antagonist; and the ECL quenching moiety is attached to an enzyme that binds to the binding partner in quenching contact.

58. (Previously Presented) A method according to claim 34, wherein said first reagent having an ECL label and said second reagent having an ECL quenching moiety are the same reagent.

59. (Previously Presented) A method according to claim 34, wherein said first reagent having an ECL label and said second reagent having an ECL quenching moiety are different reagents.

Claims 60-62 (Canceled).